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## SNAIL NOTES FROM THE CALIFORNIA DESERT

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After some years of doubt, a paratypic specimen of *Sonorella fisheri* Bartsch from Johnson Canyon, Panamint Mts., Inyo Co., California, lately received from the United States National Museum, shows this species to be almost certainly not a *Sonorella*, nor even a *Micrarionta*, although the matter might easily have been anticipated from what we know of the other snails of the region. No animal has come to hand for dissection, but if, as I am perhaps foolish enough to believe in this case possible, we can safely judge from the shell characters, the species belongs to *Helminthoglypta*, where it finds its closest alliances in the group of recently described species (*mohaveana*, *graniticola*, *jaegeri*, and others), from the southern Mohave Desert, and among these particularly with *jaegeri*.

The Ferriss Death Valley Expedition of 1922 obtained snails in some abundance in the Panamint Range closely allied to or identified with this fine species, but they failed to bring anything of the sort to light from neighboring ranges. A considerable area therefore remains to be bridged before the distribution of this group can find continuous expression on our maps. Meanwhile the extension of the range of the supposedly maritime and montane *Helminthoglypta* into the great desert areas of southern California in this fashion is in itself an interesting and

hardly predictable phenomenon. The attempt to work out the details of this distribution is proving a fascinating proceeding, although the enormous area involved, the lack of roads in many key sections, and the arduous nature of the collecting itself make progress of the slowest.

Of the forms of this genus so far described from the desert, the majority appear to be holding their formal characters and definitiveness fairly well as specimens from new localities come in, but an exception must be taken in respect to the probable distinctness from one another of my *H. mohaveana* and *H. riparia*, the one from the east side of the rocky hills across the Mohave River from Victorville, the other from the rocky outcrop on the river bank above Oro Grande. The foundation material of *mohaveana* was admittedly poor, and additional collections made the past winter (S. S. Berry & W. H. Thorpe) from the cliffs where this same range of hills abuts upon the river brought to light living specimens which while evidently close to the original *mohaveana* can not well be separated from *riparia*. Comparing all three series it becomes evident that the characters relied upon to separate these two supposed species fail in the value assigned to them, and that as a consequence *riparia* either subsides as a complete synonym of *mohaveana*<sup>1</sup> or is reduced to the rank of but a weakly defined subspecies thereof having a peculiar distribution, a point which must await the recovery of living material from the type locality of *mohaveana* for final settlement.

The distribution of a number of these Mohavean species is somewhat peculiar in that it is strikingly discontinuous, what appears to be the same species turning up again and again in entirely isolated stations, as though the present great extent of the desert floor and with it the separation of the snail colonies were a relatively recent phenomenon, too recent to permit the principle of isolation to have been afforded time for the complete specific divarication of the

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<sup>1</sup> A view which I believe is shared by Mr. George Willett on the basis of his own collections in the region, which I have not seen.

snails concerned. Quite different problems seem to be indicated by what we know of the snail fauna of the Mohave as compared with those of the neighboring Colorado Desert, where the speciation on the other hand often seems curiously linear and to take place without complete isolation.

Without doubt the most distinct species of snail from all the Californian desert region so far brought to light is the peculiar little *Micrarionta aquae-albae* Berry, described from Whitewater Canyon in Riverside County in 1922. While published as a *Micrarionta* it differs from the other species of that genus in so many important shell characters—small size, thin lip, heavy papillation of entire surface, rough brownish periostracum, brownish maculations on animal, and so on, that its recognition at least as typifying a new subgenus seems inevitable. For this purpose the new name *Chamacarionta* is here proposed. There seems a reasonable probability that additional species of the group remain to be discovered, but at present *M. (E.) aquae-albae* stands unique as the only one known.

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#### A NEW SPECIES OF STROPHOCHEILUS FROM BRAZIL

BY WILLIAM J. CLENCH AND ALLAN F. ARCHER

STROPHOCHEILUS (STROPHOCHEILUS) PORPHYROSTOMA, nov. sp. Figs. 1-3.

Shell imperforate, ovate elliptical, moderately solid, flattened dorso-ventrally. Nuclear whorl flattened, brick red, the color grading off imperceptibly into a pompeian red on the next three whorls. This in turn shades off into a pinkish buff towards the base of the shell. From the nuclear whorl to the body whorl there is a grayish subsutural line terminating at the outer lip. The last third of the body whorl is overlaid with a cinnamon periostracum. The surface of the shell is covered with delicate growth lines inter-